REMARKS/ARGUMENTS

Claims 96-97 and 99-107 are currently pending in the present application. Claims 1-95 and 98 have been cancelled. Claims 96 and 97 are independent claims. Claims 99-107 are multiple dependent claims dependent upon Claims 96 and 97. Claims 96-97 and 99-107 are rejected under 35 USC §103(a). In view of the following remarks and amendments, Applicants respectfully submit that all pending claims are now in condition for allowance.

1. 35 U.S.C. §103(a)

Claims 96-97 and 99-107 are rejected under 35 U.S.C. § 103(a) as being unpatentable over June et al. (WO 95/33823) in view of Chang et al. (U.S. Patent No. 6,129,916) (of record), Levine et al. (International Immunology 7: 891-904, 1995), Kwon et al. (U.S. Patent No. 6,569,997) (of record) and Allaway et al. (US 2004/0086528 Al) (of record).

Response

June et al. (WO95/33823) in view of Chang et al. (U.S. Pat. 6,129,916), Levine et al. (international Immunology 7:891-904, 1995), Kwon et al. (U.S. Pat. 5,569,997) and Alloway et al. (U.S. 2004/0086528 A1) fail to establish a prima facie case of obviousness under 35 USC 103(a) because the references as a whole do not teach each and every element of Claims 96-97 and 99-107.

Independent Claim 96 is drawn to an *ex vivo* method for down-regulating CCR5 expression in a T cell comprising contacting the T cell with a single bead comprising both an anti-CD28 antibody or antigen binding fragments and an anti-CD3 antibody or antigen binding fragments immobilized on said bead; and measuring the level of CCR5 RNA or protein expression in said contacted T cell.

Independent Claim 97 is drawn to a method for down-regulating CCR5 RNA protein expression in a T cell, comprising contacting the T cell *in vivo* with a single bead comprising both an anti-CD28 antibody or antigen binding fragments and an anti-CD3 antibody or antigen binding fragments immobilized on the same bead; and measuring the level of CCR5 RNA protein expression in said contacted T cell. Claim 99-107 are multiple dependent claims of Claims 96 and 97.

The Office Action alleges that the combination of the primary reference, June et al. in view of Chang, Levine, Kwon and Allaway teach the beneficial effects of contacting T cells with anti-CD3 and anti-CD28 antibodies on a bead to increase HIV resistance and that the beneficial effect was a result of down regulation of CCR5. Thus one of skill in the art would have been motivated to combine the teachings of the references in order to induce an HIV resistant state and to monitor the expression of CCR5 expression as a result of the effect of combining anti-CD3 and anti-CD28 antibodies on T cell populations on HIV expression. It is also alleged that one of ordinary skill in the art at the time the invention was made would have been motivated to monitor the expression of CCR5 expression to monitor the effect of combining anti-CD3 and anti-CD28 antibodies on T cell populations on HIV expression. In addition, the Examiner found the prior art provides for the co-immobilization of anti-CD3 and anti-CD28 on the same bead as a means of stimulating T cells.

Applicant contend that Kwon is not a prior art against this invention. Kwon is a continuation of application no. 09/007, 097, filed 01/14/98, which is a continuation-in-part of application no. 08/409,851, filed 03/23/1995. The relevant teachings of Kwon applied by the Examiner, i.e. "ligation of T cells with anti-CD3 antibodies and anti-CD28 antibodies induce an HIV resistant state," was not disclosed in application no. 08/409,851 filed 1995, but was first

presented in patent application no. 09/007, 097, filed 01/14/98. Kwon et al thus should have the priority date of 01/14/1998 and removed as a prior art. Without Kwon, the combined teachings of the rest of the prior art does not teach each and every elements of the current invention.

In view of the above stated arguments, Applicants respectfully request the withdrawal of finality in the case and application be placed in condition for allowance.

Respectfully submitted,

Ning Yang, Esq.
Registration No. 55,750
Customer No. 22, 245
Tel.:301-319-9433

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